

#### IN THE SPECIFICATION:

Please replace the second paragraph on page 2, which starts "It is indicated" with the following:

It is indicated in Gau Sheau Jy's masters thesis on the triterpenoid of Zang Zhi that Zang Zhi is a new species of ~~*Ganodenna*~~ *Ganoderma* discovered in 1990. The extract of the solid fruiting body is obtained by use of acetone, and then is separated and re-crystallized with chromatography LC and PLC. The purity of the extract is identified by TLC scanning and HPLC. The configuration test is done with mass spectrum, infrared spectrum, ultraviolet spectrum, H-NMR, and C-NMR. 3,11-dioxo-8,23-dien-26-oic acid can reduce GPT in the blood of a mouse with the acute hepatitis induced by CCl<sub>4</sub>.

Please replace the third paragraph on page 2, which starts "Most of Zang Zhi " with the following:

Most of Zang Zhi grows in the broad-leaf forest areas in Taiwan's East Coast Mountain Range. However, according to the bulletin of the Niou Zang Conservation Notice issued by the Taiwan Forestry Bureau, this mountain range has been listed as a natural resources conservation zone. Since Zang Zhi is a very popular product which most people are willing to purchase in Asia, Zang Zhi growing outside the said zone have been almost completely harvested. In fact, wild Zang Zhi ~~are~~ is not available in the local markets.

Please replace the last paragraph on page 2, which starts "The main objective" with the following:

The main objective of the subject invention is to provide an incubation method for solid culture of Zang Zhi. The cultured Zang Zhi will have the same pharmaceutical efficacy as ~~the wild one does~~ Zang Zhi has.

Please replace the fourth paragraph on page 3, which starts with the heading "BRIEF DESCRIPTION OF THE DRAWINGS" with the following:

~~BRIEF DESCRIPTIONS~~ DESCRIPTION OF THE DRAWINGS

Figs. 1a-c ~~Fig. 1 illustrates~~ illustrate comparative analysis of the HPLC of constituents of a Zang Zhi, including (1) (a) the fruiting body of cultured Zang Zhi according to the invention, (2) (b) the liquid culture of Zang Zhi and (3) (c) the fruiting body of wild Zang Zhi.

Please replace the fifth paragraph on page 3, which starts "Fig. 2 illustrates" with the following:

Fig. 2 illustrates the use of ferrous ions to stimulate the homogenization of mouse brain to cause the free radical peroxidative reaction of lipid, which will result in increasing of the TBARS (peroxidative constituents of lipid). Comparing the triple fold with the eight fold of concentrated extract of Zang Zhi fruiting body cultured according to the invention, we note that the ~~increase~~ increased inhibition of the peroxidative reaction will vary with the ~~increased~~ increase of the concentration, that is shown by the percentage of inhibition of per oxidative reaction (n=3).

Please replace the third paragraph on page 4, which starts "This invention provides" with the following:

This invention provides a method for the solid culture of Zang Zhi, in order to produce ~~the a~~ Zang Zhi fruiting body with the constituents and vitality of wild Zang ~~Zhis~~ Zhi. The invention's method for the solid culture of Zang Zhi is to culture the spawn of Zang Zhi through "Bag Log" cultivation, and then to produce the fruiting body of Zang Zhi in the air.

Please replace the fourth paragraph on page 4, which starts "Before the phase" with the following:

Before the phase of mycelium culture, ~~it is usual to~~ one can greatly multiply the spawn for "Bag Log" cultivation, including the following three steps: (1) taking a piece of medium agar containing hyphae preserved in liquid nitrogen, and ~~transfer~~ transferring it into a fresh medium to culture under constant temperature until the exuberant growth of mycelium appears; (2) inoculating the spawn into the "Bag Log" containing cellulolytic substance (for example kernel or spelk); (3) removing the ~~supra~~ old hyphae until the hyphae overgrows in the "Bag Log"; and (4) then inoculating the multiplied spawn into "Bag Log".

Please replace the second paragraph on page 5, which starts "Here, the so-called" with the following:

Here, the so-called "Bag Log" is ~~the a~~ plastic bag containing a sawdust medium made from 10-70% of cellulolytic material of stem, stalk, fruit, or spelk of

any mushroom or plant (~~especially~~ preferably the stems, stalks and fruits of grass plants or ~~even cellulolytic spelk are better~~), 10-30% of starch resource (~~especially~~ preferably potato ~~is better~~), and 5-15% of millet (preferably rice bran ~~is better~~), 1-10% of saccharides (preferably glucose ~~is better~~), 0.5% of phosphate (preferably potassium phosphate ~~is better~~), and 0.1-1% of sulfate salt (preferably magnesium sulfate ~~is better~~). Relative humidity is maintained at 60-90%, preferably better at 80%. The pH value of the culture medium is adjusted to be neutral.

Please replace the third paragraph on page 5, which starts "The phase of" with the following:

The phase of mycelium culture indicated in this text means a period of sixty days after the spawn is inoculated into "Bag Log". Mycelium will grow at a temperature from 5° to 32°C; in particular, 28°C is the best temperature for the growth of mycelium. "Bag Log" cultivation is under way at a relative humidity of about 60-80% and ~~better~~ preferably at about 80%. As to the condition of air, 0.1-1% of carbon dioxide is ~~better~~ preferable for the culture.

Please replace the third full paragraph on page 7, which starts "The strain CCRC35398" with the following:

The strain CCRC3598 spawn obtained from the Food Industry Research and Development Institute were grown by ferment liquid culture, and then inoculated into the "Bag Log". The fermented liquid culture contains 2% of fructose, 0.5% of magnesium sulfate, 0.5% of yeast extract, and 0.1% of potassium phosphate. "Bag

Log" cultivation is to culture mycelium. 'Bag Log" is composed of 65% of the stems, stalks, fruits of grass plants or cellulolytic spelk, 20% of potato, 10% of rice bran, 3.5% of glucose, 1% of potassium phosphate, and 0.5% of magnesium sulfate. Adjust the relative humidity to 80% and pH to 7. Relative humidity was maintained at 60-90% ~~better~~ preferably at 80%, and the pH of the culture medium was adjusted to being neutral.

Please replace the first paragraph on page 8, which starts "After the phase" with the following:

After the phase of the mycelium culture, the phase of the culture of the fruiting body is ~~on done~~, that is to say 61-90 days after the date of inoculation of the spawn, the plastic bag of "Bag Log" is to be removed, to let the sawdust medium be completely exposed in the air. During the phase of the culture of the fruiting body, the difference between day and night temperature has to be under strict control. Day temperature is generally maintained between 20° and 30°C; night temperature is better maintained at  $11 \pm 1^{\circ}\text{C}$ ; the difference between day and night temperature is better maintained at 15°EC. The relative humidity of the phase of the fruiting body culture is controlled between 90 and 95%. In addition, the fruiting body has to be cultured in the moving air, and the carbon dioxide is less than 1%.

Please replace the second paragraph on page 8, which starts "In 90-120 days," with the following:

In 90-120 days, when the conoid fruiting body grows up to 15 cm in diameter

and 25 cm in height, the solid-cultured substance will be collected, and then the substance is about 0.4 kg in weight. The HPLC spectrum of major active elements - triterpenoid - is shown Figure 1(a) ~~1(1)~~, and the measurements are shown in the following Table 1.

Please replace the last paragraph on page 10 which starts "The differences between" with the following:

The differences between the invention's Zang Zhi fruiting body, other cultural methods and liquid cultural method were compared by the analysis of HPLC. The HPLC spectra are shown in Figure ~~1(2)-(3)~~ 1(a)-(c); and the measurements are shown in Table 2 and Table 3. These spectra show that the invention's Zang Zhi fruiting body and wild Zang Zhi have the same shape of peak, and also show that the invention's cultured Zzang Zhi fruiting body and that of wild ZangZhi have the same activities and functions.

## REMARKS

The Official Action of April 22, 2003 has been carefully considered and reconsideration of the application as amended is respectfully requested.

The specification and the abstract have been amended to remove the bases for the objections appearing at paragraphs 8-10 of the Official Action. The amendments are of a clerical nature only and no new matter has been introduced. The fact that the plastic bag in paragraph 0018 contains "a sawdust medium" is inherent from the application as filed at paragraph 0020.

The claims have been rewritten to remove the bases for the objections and rejections appearing at paragraphs 11-16 and 20 of the Official Action. The recitation that the claimed solid fruiting body is of conoid shape and of the recited dimensions appears in the specification as filed at, for example, the first paragraph on page 6. The recitations pertaining to the HPLC spectrum of the solid fruiting body is sanctioned by MPEP Section 2173.05(s). All claims presently on file are believed to be sufficiently definite to satisfy the dictates of 35 USC 112, second paragraph.

With respect to the rejections appearing at paragraphs 17 and 18 of the Official Action, Applicants respectfully note that biological material need not be deposited if such biological material is known and readily available to the public or can be made or isolated without undue experimentation (see 37 CFR 1.802(b)). In the present case,

wild-type Zang Zhi is known and available to the public as can be seen, for example, from the Background of the Invention section of the specification (pages 1-2) and the cited prior art. Accordingly, it is respectfully submitted that a deposit of Zang Zhi is not required to satisfy the provisions of 35 USC 112, first paragraph for the invention as now claimed.

Certain claims were rejected under 35 USC 102(b) as allegedly being anticipated by Yang et al. Other claims were rejected under 35 USC 103(a) as allegedly being unpatentable over Yang et al in view of Endrawanto, Zhang et al and Wang. Applicants respectfully traverse these rejections.

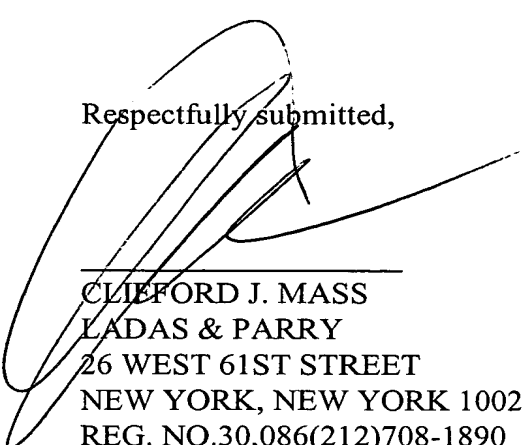
All claims presently on file require that the recited cultured fruiting body be **conoid** in shape and, in at least certain embodiments, about 10-30 cm in diameter, 15-30 cm in height and 0.2-0.6 kg in weight. This is significantly different from the wild fruiting body (which is the only fruiting body shown or suggested in the primary reference), which is in the shape of a **platy or bell**. Accordingly, a combination of the cited references, even if proper, would not arrive at the claimed invention. Moreover, Applicants respectfully note that, prior to their invention, no cultured fruiting body of Zang Zhi had been successfully cultured. In this respect, it is settled that the absence of a known method for making the claimed composition at the time the invention was made is indicative of nonobviousness (see MPEP Section 2144.09).

In view of the above, it is respectfully submitted that all rejections and



objections of record have been successfully traversed and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



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CLIFFORD J. MASS  
LADAS & PARRY  
26 WEST 61ST STREET  
NEW YORK, NEW YORK 10023  
REG. NO.30,086(212)708-1890